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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/673,832	09/29/2003	Cesar A.S. Rodrigues	FA1037USNA	2540

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E I DU PONT DE NEMOURS AND COMPANY
LEGAL PATENT RECORDS CENTER
BARLEY MILL PLAZA 25/1128
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WILMINGTON, DE 19805

EXAMINER

SELLERS, ROBERT E

ART UNIT	PAPER NUMBER
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1712

DATE MAILED: 11/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/673,832

Applicant(s)

RODRIGUES ET AL.

Examiner

Robert Sellers

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) 10,13 and 16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9,11,12,14,15 and 17 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4/25/2005.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-9, 11, 12, 14, 15 and 17, drawn to a composition comprising the reaction product of a polyepoxide, dimer fatty acid and polyisocyanate combined with an amino functional silane and a substrate coated therewith (claims 14 and 15), classified in class 523, subclass 458.
 - II. Claims 10 and 13, drawn to the composition of Invention I further comprising additional amino functional compound(s), classified in class 525, subclass 528.
 - III. Claim 16, drawn to a coated substrate comprising a base coat and a top coat, classified in class 428, subclass 416.

The inventions are distinct from each other because:

2. Inventions I and II are related as mutually exclusive species in an intermediate-final product relationship. Distinctness is proven for claims in this relationship if the intermediate product is useful to make other than the final product (MPEP § 806.04(b), 3rd paragraph), and the species are patentably distinct (MPEP § 806.04(h)). In the instant case, the intermediate product is deemed to be useful as a molding formulation and the inventions are deemed patentably distinct since there is nothing on this record to show them to be obvious variants.
3. Inventions (I or II) and III are related as mutually exclusive species in an intermediate-final product relationship. Distinctness is proven for claims in this relationship if the intermediate product is useful to make other than the final product (MPEP § 806.04(b), 3rd paragraph), and the species are patentably distinct

(MPEP § 806.04(h)). In the instant case, the intermediate product is deemed to be useful as a molding formulation and the inventions are deemed patentably distinct since there is nothing on this record to show them to be obvious variants.

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions anticipated by the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Restriction for examination purposes as indicated is proper because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification.

4. This application contains claims directed to the following patentably distinct species of the claimed invention:

- a. The polyepoxides.
- b. The aminosilanes.
- c. The compositions with or without the pigment of claim 12, wherein if its presence is elected, a particular species thereof is identified.
- d. Contingent upon the election of Group II, items a, b and c hereinabove and the additional amino functional compounds.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species within each of items a, b, and c, and d if appropriate, for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claims 1-17 are generic.

A reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

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During a telephone conversation with Steven C. Benjamin on October 26, 2005, a provisional election was made with traverse to prosecute Invention I, a blend of Epon 1001 and 828 bisphenol A epoxy resins as shown in Example 1 on page 11, lines 3-8 of the specification, N- β -aminoethyl- γ -aminopropyltrimethoxysilane and the presence of titanium dioxide pigment, claims 1-9, 11, 12, 14, 15 and 17. Affirmation of this election must be made by applicant in replying to this Office action. Claims 10, 13 and 16 are withdrawn from further consideration under 37 CFR 1.142(b) as being drawn to non-elected inventions.

5. The word "safflower" is misspelled in the specification on page 4, line 21. The term "epoxy" is misspelled in claim 3, line 2.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-9, 11, 12, 14, 15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Merton et al. Patent No. 4,430,479 in view of Stalego Patent No. 3,562,081; Adaniya et al. Patent No. 4,775,600 and Kordomenos et al. Patent No. 4,486,556.

6. Merton et al. discloses a composition coated (col. 7, lines 26-28) as an adhesive to a surface such as an automobile (col. 2, line 62) comprising an organic polymer having crosslinkable functional groups (col. 2, lines 6-12) obtained from the reaction of a diepoxide such as the diglycidyl ether of bisphenol A, Epon 828 (one of the elected species) and a dicarboxylic acid (col. 4, lines 34-36 and 46-48 and col. 8, lines 24-38)) such as a C₃₆ dimer acid derived from linoleic acid (col. 5, lines 8-10). The resulting hydroxyl-substituted polyester is pre-reacted with a polyisocyanate crosslinking agent (col. 5, lines 24-28 and 64 to col. 6, line 2) prior to the blending of up to about 35% by weight of a solvent (col. 6, lines 63-65), pigments and other modifiers.

The claimed amino functional silane is not recited.

7. Stalego (col. 2, lines 28-60) sets forth a binder composition prepared from the reaction product of a diglycidyl ether of bisphenol A, a dimer acid produced from C₈-C₂₀ fatty acids, a curing agent, and and aminoalkylsilane such as the elected species of N-β-aminoethyl-γ-aminopropyltrimethoxysilane (col. 4, lines 4-8).

8. Adaniya et al. (col. 2, lines 62-66) teaches a base resin for a coating formulation containing an epoxy resin modified with a fatty acid (col. 5, lines 29-40), a polyisocyanate and a silane compound (col. 7, lines 1-2) such as N-β-aminoethyl-γ-aminopropyltrimethoxysilane (col. 10, lines 54-57).

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9. It would have been obvious to employ the N- β -aminoethyl- γ -aminopropyl trimethoxysilane of Stalego and Adaniya et al. as the other modifier of Merton et al. in order to improve the moisture resistance and electrical properties (Stalego, col. 4, lines 6-8) as well as enhancing the adhesion, water resistance and corrosion resistance (Adaniya et al., col. 10, lines 42-48).

The particular species of pigment listed in claim 12 is not recited.

10. Kordomenos et al. (col. 2, lines 50-64) espouses a coating for an aluminum substrate (col. 24, lines 11-12) obtained from an epoxy ester yielded via the reaction of a diepoxide such as Epon 1001 containing hydroxyl functionality (col. 7, lines 1-3) which are suitable when higher molecular weight diepoxides are desirable (col. 6, lines 62-64), a diphenol, dimers of C₄-C₂₂ fatty acids (col. 9, lines 46-48) and fatty acid chain terminators blended with a blocked polyisocyanate crosslinking agent, a solvent and pigments such as the elected species of titanium dioxide (col. 23, lines 44-50) in a pigment to binder weight ratio of from 1:1 to 2:1 (col. 23, lines 56-60).

11. It would have been obvious to incorporate the titanium dioxide within the pigment to binder ratio range of Kordomenos et al. as the pigment of Merton et al. in order to impart a white color thereto.

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The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

12. The Japanese patent shows a mixture applied to an automobile (translation, page 3, paragraph 25) comprising a dimer acid-modified epoxy resin (page 2, paragraph 14), dicyandiamide, an imidazole and a polyisocyanate (page 1, last line to page 2, line 4) and a titanium oxide bulking agent (page 3, paragraph 22).
13. Ilaria Patent No. 4,282,123 (col. 1, lines 25-39) is directed to a blend of an adduct of a diglycidyl ether of bisphenol A and Empol 1016 dimer acid (col. 3, lines 20-21) and a urethane prepolymer.

Neither of the references recite the claimed pre-reaction of the polyisocyanate with the polyepoxide and dimer fatty acid.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Sellers whose telephone number is (571) 272-1093. The examiner can normally be reached on Monday to Friday from 9:30 to 6:00. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at (866) 217-9197 (toll-free).



Robert Sellers
Primary Examiner
Art Unit 1712